Unit 1 Review:

- Metric System
  - Use bases and prefixes to give the units of a quantity
  - Seven different bases
  - We learned six prefixes
  - Smaller number to a larger number → decimal moves left
  - Larger number to smaller number → decimal moves right

- Scientic Notation
  - Way of writing really large or really small numbers easily
  - Convert from decimal to scientific notation or scientific notation to decimal
  - Form is _._ _ X 10^_._ _ _ E _

- Scientific Method:
  - Observe
  - Research
  - Hypothesis
  - Test hypothesis
  - Gather data
  - Conclude
  - Share

- Variables
  - Independent Variable → you change this one
  - Dependent Variable → gets changed by changing independent variable
  - Constants → variables that stay the same during the experiment
- Groups
  - Experimental → independent variable IS changed
  - Control → independent variable is NOT changed

- Physical v. Chemical Changes and Properties:

  - Physical Properties → observable items about an object

  - Chemical Properties → properties defined by the chemical composition of an object

  - Physical Changes → changes in physical properties, but the underlying material stays the same

  - Chemical changes → changes in chemical structure of the object

(6th indicator: A precipitate forms)

- Types of Matter
  - Mixtures
    - Homogeneous
    - Heterogeneous
  - Substances
    - Elements
    - Compounds

Atom → Molecules
- smallest part of element

Molecules
- smallest part of a compound
- different elements

Molecules → (still "Element") same element

- Phases of Matter:
  - BEC, solid, liquid, gas, plasma
    (least energy to most energy)
  - Terms for changing from one phase to another
  - Melting point → exists both as solid and liquid
  - Boiling point → exists both as liquid and gas

- Density:
  - $\frac{\text{mass}}{\text{volume}}$
  - See notes for practice problems